STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   Timber Sale Name: WOODLAWN GONE BD *Agreement #: 30-084215*

2. Name of applicant: Department of Natural Resources

3. Address and phone number of applicant and contact person:
   Chance Brumley
   411 Tillicum Lane
   Forks, WA 98331
   (360)374-6131

4. Date checklist prepared: 02/12/2009

5. Agency requesting checklist: Department of Natural Resources

6. Proposed timing or schedule (including phasing, if applicable):

   a. *Auction Date: 06/25/2009*
   b. *Planned contract end date (but may be extended): 9/15/2010*
   c. *Phasing:*

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   Timber Sale

   a. *Site preparation:* *No*

   b. *Regeneration Method:*
   TSU NO :1 HAND PLANT *01/01/2011* *49 Acres*

   c. *Vegetation Management:* Needs to be assessed 5-7 years after harvest

   d. *Thinning:* Needs to be assessed 12-15 years after harvest.

   Roads: Future routine maintenance including grading and ditch cleanout.

   Rock Pits and/or Sale: None

   Other:

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐*303 (d) – listed water body in WAU:* ☐*temp* ☐*sediment* ☐*completed TMDL (total maximum daily load):*
☐*Landscape plan:*
☐*Watershed analysis:*
☐*Interdisciplinary team (ID Team) report:*
☒*Road design plan: Road Plan Dated February 5, 2009*
☐*Wildlife report:*
☐*Geotechnical report:*
☐*Other specialist report(s):*
☐*Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☐*Rock pit plan:*
☒*Other:* Woodlawn Gone Blowdown RMZ Concurrence Letter (February 3, 2009);Final Habitat Conservation Plan (September 1997); State Soil Survey; Interim Marbled Murrelet strategy; Forestry Handbook (August 1999). Sustainable Harvest Calculation (Sept 2004) and Policies for Sustainable Forests, Riparian Forest Restoration Strategy (April 2006).

All documents may be obtained at the Olympic Region Office for review during the SEPA comment period.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. No

10. List any government approvals or permits that will be needed for your proposal, if known.

☐*HPA* ☐*Burning permit* ☐*Shoreline permit* ☒*Incidental take permit* ☒*FPA #* _____ ☒*Other: Board of Natural Resources*

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. Complete proposal description:
Woodlawn Gone Blowdown timber sale is a one unit variable retention (VRH) harvest with associated riparian harvest located on Common School trust land within the East Fork Hoquiam WAU. The total proposal area encompasses approximately 76 acres Following field recon, 52 acres were selected for the proposed sale area. Excluding leave tree area acreage, the net harvest acres for this proposal are 49. Green tree retention trees were selected both individually and in small aggregates within the variable retention harvest area and are included in the timber sale area acreage. This proposal was designed under the guidelines of the Habitat Conservation Plan (HCP).

Estimated sale volume:	1,209 mbf
Total Proposal Acres:	76
Timber Sale Area Acres:	52
RMZ Acres:	24
RMZ Harvest Acres:	2
VRH Acres:	47
Net Harvest Acres:	49
Leave Tree Area Acres:	2.7
Total Leave Trees:	400

Approximately 3,320 feet of construction and 20,590 feet of pre-haul maintenance are proposed to meet access needs into the sale area. Following completion of the proposal approximately 260 feet of road will be decommissioned.

b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.

Pre-Harvest Stand Description:

This sale is comprised of naturally regenerated mid-1950 stands consisting of mixed-quality 55 year-old western hemlock with elements of Douglas-fir, Sitka spruce, and red alder scattered throughout the units. The uplands and riparian areas have experienced extensive windthrow during the winter storms of 07/08. Approximately 60% of the proposed sale area is wind thrown with the remaining 40% intact.

Type of Harvest:

This proposal consists of a mix of variable retention harvest and riparian harvest consisting of approximately 2 acres of blown down riparian management zones and approximately 47 acres of variable retention harvest on adjacent uplands. Within the RMZ harvest the inner core has been protected with the installation of a 25' buffer. All sound standing timber, all "legacy" down wood not associated with the recent wind storm events, and 10 down conifer logs per RMZ acre will be left. An estimated 15 -20% of the original stand will be left post harvest within the riparian harvest areas. These activities will reestablish a conifer stand on trajectory toward the riparian desired future condition. Particular care will be taken to minimize disturbance within the RMZ. Planting conifer seedlings in the RMZ, in addition to the expected natural regeneration of western hemlock and various hardwoods, will enable us to develop a multi-layered structure in the forest canopy in conjunction with future activities. See attached salvage plan for more details on the proposed RMZ harvest

Overall Unit Objectives:

Objectives for this proposal are to provide financial benefit to the Common School under the guidelines provided by Forest Practice rules, DNR's Habitat Conservation Plan (HCP). Specific objectives include riparian protection while capturing the blowdown mortality, re-establishing the riparian areas with conifer after harvest and protection of soils. Contract language and equipment limitations will help reduce soil impacts. This proposal will be harvested by shovel and cable logging only and harvest operations will be suspended during periods of wet weather.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		3,320	1	
Reconstruction				
Abandonment				

Bridge Install/Replace				
Culvert Install/Replace (fish)				
Culvert Install/Replace (no fish)	5			

20,590 feet of pre-haul maintenance are planned in conjuncture with this proposal.

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. *(See timber sale map available at DNR region office, and/or color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. Legal description:

T18N R10W S36

b. Distance and direction from nearest town (include road names):

This proposed timber sale is located 5 road miles north east of Aberdeen, Washington off the Weyerhaeuser H-line and North Aberdeen A-line road system. It is located in parts of Section 36 T18N, R10W, W.M.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")

WAU Name	WAU Acres	Proposal Acres
EF HOQUIAM	25908.2	52

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)

The proposed Woodlawn Gone Blowdown timber sale is located within E.F Hoquiam WAU within the South Coast LPU. There are 25,908 acres within WAU. Areas directly adjacent to the proposal area are under management by DNR to the north and south, with private ownership to the east and. Surrounding areas are composed of mixed ownership consisting of private and DNR managed lands. The following tables break down land ownership within the WAUs.

(See color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")

E.F Hoquiam WAU

Land Owner	Acres	% of WAU
DNR	626	2
Federal	0	0
Tribal	0	0
Other State (Non-DNR)	33	0
Other Land (Private & Other Public Land)	25249	97

Activities within the past seven years and those proposed for the near future are summarized for E. F. Hoquiam in the following table. On DNR ownership during this seven year time frame 92 even-age and 2 acres of uneven-age harvest have occurred within the WAU. There are no proposed harvests within this WAU on DNR managed land in the near future. In the future, stands will be selected for regeneration, thinning, and partial cut harvests as they meet the Department's financial and ecological policies and mandates. Over the past seven years, on Non-DNR managed lands there has been 1483 acres of even-aged harvest 119 acres of uneven-aged harvest, and 162 acres of salvage. It is unknown what future plans other landowners have within these WAUs.

		Even-aged Harvest acres within the last seven year	Uneven-aged Harvest acres within the last seven year	Planned Even-aged Harvest	Planned Uneven-aged Harvest	Salvage
Middle Hoh	**DNR Managed Land**	92	2	0	0	0
	Other Ownership	1483	119	Unknown	Unknown	162
	Total	**1575**	**2**	**420**	**0**	**162**

Several measures have been taken to ensure that this proposal will not contribute to cumulative adverse environmental impacts. In order to prevent potential damages to soil and water resources from excessive rutting and potential sediment delivery to nearby streams, ground based logging will be restricted to tracked equipment only. Furthermore, wet weather restrictions will be in effect in all units. A 30 foot equipment limitation zone will be in effect on all Type 5 streams. Buffers have been installed on typed streams within the proposal area to protect flood plains and unstable slopes promoting proper functioning of the riparian areas. Road construction, reconstruction, and maintenance activities will be in compliance with the HCP, HPA, and current Forest Practices regulations. The work detailed in the road plan has been designed to improve surfacing on the haul roads, and provide for better drainage by installing additional, and replacing inadequate, culverts that will divert storm water onto stable forest floor. These actions will minimize the potential for delivery of sediment to streams. Soils exposed during road construction activities will be protected from erosion by grass seeding and mulching with hay.

The DNR has an HCP agreement with the federal government concerning threatened and endangered species and their habitats, which requires the department to manage landscapes with the intent to preserve and enhance habitat used by fish and older forest dependent species. This agreement substantially helps the department to mitigate for any potential harmful cumulative effects related to its management activities. The HCP is designed to protect and promote fish and wildlife species and their habitats over a broad regional area. The applicable HCP strategies incorporated into this proposal are as follows:

- Retaining Riparian Management Zones (RMZ 's) on all streams,
- Deferring harvest on unstable slopes,
- Retaining approximately 15 – 20% of the original stand within Riparian harvest areas.
- Designing, constructing, and maintaining a road system to minimize potential adverse effects on the environment.
- Procedures pertaining to threatened and endangered species

Salvage within riparian areas (2 acres) will provide LWD to the stream and some shade relief until a new conifer plantation is established. There will be no equipment allowed to operate within the inner cores of these streams. All standing sound conifer will be left. Along with the preservation of the current standing timber and the timely reforestation with Sitka spruce and western red cedar this will promote a faster recovery of canopy closure in these riparian areas meeting the enrichment goals of a VRH. Several patches of mixed standing timber and blowdown will be left due to operational considerations. These areas will meet the life boating goals of the VRH.

This proposal is not within any spotted owl management areas. 1.2 acres of reclassified habitat will be harvested in conjuncture with this proposal. The sale area is located within the E. F. Hoquiam WAU where 4 acres of habitat are available for harvest. The area proposed for release experienced extensive wind throw during the winter storms of 2007/2008

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☐Rolling, ☐Hilly, ☒Steep Slopes, ☐Mountainous, ☐Other:

1) *General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).*
The E.F. Hoquiam WAU is located on the western portion of the Olympic Peninsula.
Elevation: 0 – 918 ft. with a mean elevation of 246 ft.
Annual Precipitation: weighted average 97 inches annually
Forest Vegetation Type: Western Hemlock
Peak Rain on Snow: 0% of the total acres within this WAU are within the peak rain on snow zone

2) *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*
The elevation range for this proposal is 120-440'

b. What is the steepest slope on the site (approximate percent slope)?
70%

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
9804	SILT LOAM	30-65	31	MEDIUM	HIGH
2988	SILT LOAM	8-30	17	INSIGNIFIC'T	MEDIUM
2990	SILT LOAM	30-65	3	MEDIUM	MEDIUM
9805	SILT LOAM	65-90	1	HIGH	HIGH

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) *Surface indications:* The proposal is located on moderate to steep gradient slopes and is immediately adjacent to incised stream channels with actively slumping banks evidenced by over steepened slopes and exposed bare soil. Steep convergent slopes are also present adjacent to the proposal, however no surface indications of recent instability were observed in these landforms.

2) *Is there evidence of natural slope failures in the sub-basin(s)?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
There is some evidence of natural slope failures in the steeper, higher areas of the WAU. These are generally associated with steep stream channels and headwalls. None of these areas are found within the immediate area of the proposal.

3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
Associated management activity:
Slope failures associated with harvest activities have occurred on steep ground within the WAU. Most of these have been associated with harvest and past road construction practices on unstable slopes.

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☒*No* ☐*Yes, describe similarities between the conditions and activities on these sites:*

5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*
This proposal was designed to avoid operations on or near unstable slopes.
Harvest systems have been designed to limit ground based logging to slopes less than 35% and will not be permitted during periods of wet weather.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
*Approx. acreage new roads:*1 *Approx. acreage new landings:*<1 *Fill source::* Commercial Rock Source

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes. A small amount of incidental surface erosion could occur during the course of road construction and harvest activities. However, prudent road location, construction, and maintenance, as well as the mitigating measures outlined in question h. below will minimize and control any possible erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*
1%

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)
Roads will be constructed with properly located ditches, ditch outs and cross drains to divert water onto stable forest floor and/or into stable natural drainages. Ground based operations will be suspended during periods of wet weather or wet soil conditions when rutting of skid or shovel roads begins. A 30' equipment limitation zone will be in effect on all Type 5 streams. Leave trees are scattered and clumped throughout the sale units. Harvested areas will be reforested within one growing season of the expiration of the contract.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling*, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.
Insignificant amounts of engine exhaust from logging equipment and dust from passage of log trucks. Logging slash, if burned, will be burned adhering to the State's smoke management plan.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
No

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
None

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map available at DNR region office, or forest practice application base maps.)*

a) Downstream water bodies: Unnamed perennial streams, East Fork Hoquiam River

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Stream	3	5	175'
Stream	4	5	100'
Stream	5	13	30' No Equipment Zone

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.
Type 3 waters have a 175' average buffer applied to standing timber.
Type 4 waters have a 100' average buffer applied to standing timber.
Type 5 (including RMZ units) have a 30' foot no equipment zone applied to them.

Portions of this proposal are within Type 3 and Type 4 RMZ's that were blown down over the winter of 2007/2008. One segment of Type 3 streams and 1 segment of Type 4 streams, encompassing approximately 2 acres, will undergo riparian harvest. Within the RMZ harvest, the inner core has been protected with the installation of a 25' buffer. All sound standing timber, "legacy" down wood not associated with the recent wind storm event, and 10 down conifer logs per RMZ acre will be left. An estimated 15 -20% of the original stand will be left post harvest in the riparian harvest areas. This will provide LWD to the stream and some shade relief until a new conifer plantation is established. Road construction and logging operations will be in compliance with the HPA, HCP, and Forest Practice rules to mitigate possible adverse effects on RMZs. There are no wetlands associated with this proposal.

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐ *No* ☒ *Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)*
Description (include culverts):
See 3 a1c

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
None

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*
☒ *No* ☐ *Yes, description:*

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒ *No* ☐ *Yes, describe location:*

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒ *No* ☐ *Yes, type and volume:*

7) *Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*
Yes, as described above there is evidence of mass wasting and surface erosion in the WAU, however the potential for eroded material to enter surface water is low due to excluding unstable slopes from the sale area and the protections described in B 1-h.

8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*
☐*No* ☒*Yes, describe changes and possible causes:*
Yes, areas within the E.F. Hoquiam WAU show evidence of changes to stream channels. Some steep drainages in this WAU shows evidence of debris torrent events which have increased the dimensions of affected drainage channels, exposed native bedrock which now forms the floor along segments of channels, and decreased the overall amount of large woody debris in the streams. These events may be attributed to past road construction techniques, unstable slopes, or significant amounts of precipitation in short time periods.

9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☒*No* ☐*Yes, explain:*
This proposal will have minimal effect on water quality due to sale design and protection measures as described throughout this document.

10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*
3.1 miles/sq. mile
Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☐*No* ☒*Yes, describe:*
Some roads within the WAU intercept sub-surface flow and deliver it to streams. In recent years an emphasis has been placed on using more cross-drain culverts both on new road construction and on existing road reconstruction. This has resulted in more ditch water being diverted back to the forest floor.

11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not,* ***STOP HERE*** *and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☒*No* ☐*Yes, approximate percent of WAU in significant ROS zone.*
Approximate percent of sub-basin(s):

12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*

13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☐*No* ☒*Yes, describe observations:*
Areas within the WAU show evidence of changes to stream channels. The changes to stream channels described in B.3.a.8. above occurs during peak flow events and can result in accelerated sediment aggradations. Lack of large woody debris (LWD) can contribute to stream scouring and cutting during peak flow events.

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*
This proposal should not measurably change the timing, duration, or amount of water in a peak flow event. The harvest prescription, unit size, and location (not in the Rain-on-Snow Zone), will minimize this proposal's potential contribution to peak flows.

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☒*No* ☐*Yes, possible impacts:*

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*
Road maintenance and reconstruction will minimize impacts by using cross drains to release ditch water onto stable forest floors where much of the energy can be dissipated prior to reaching stream channels. Installation of new culverts designed to withstand 100 year flood events will also mitigate possible damages from peak flow/flooding events. Maintaining large RMZ's on streams that maintain bank stability, hydrologic function and provide recruitment of LWD. Within the RMZ salvage areas removal of blowdown will allow for the re-establishment of conifer species promoting more rapid development towards desired future condition. See B.1.h, B.3.a.1.c and A.13 for additional protection measures.

b. Ground *Water*:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
None

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒*No* ☐*Yes, describe:*

a) Note protection measures, if any.
None

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water runoff will be collected by road ditches and diverted through cross drain culverts onto the forest floor.

2) Could waste materials enter ground or surface waters? If so, generally describe.
No
a) Note protection measures, if any.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

4. Plants

a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☐maple, ☐aspen, ☐*cottonwood,* ☐*western larch,* ☐*birch,* ☐other:
☐evergreen tree: ☒*Douglas fir,* ☐*grand fir,* ☐*Pacific silver fir,* ☐*ponderosa pine,* ☐*lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☒*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☐other:
☒shrubs: ☐*huckleberry,* ☒*salmonberry,* ☐*salal,* ☐*other:*
☐grass
☐pasture
☐crop or grain
☒wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☐skunk cabbage, ☒*devil's club,* ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☐other types of vegetation:
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")
To the north is state owned 25 year old timber. State timber approximately 20 years old makes up the south boundary. To the east is privately owned approximately 20 year old timber. Approximately 50 year old state timber makes up the majority of the west boundary, with a housing development in the northwest corner of the unit.

2) Retention tree plan:
All standing timber within these riparian harvest units will be left. Within the variable retention harvest areas eight trees per acre totaling 400 trees are dispersed and aggregated throughout the unit. Large structurally unique trees as well as trees showing wind firmness were targeted for retention.

c. List threatened or endangered *plant* species known to be on or near the site.

TSU_Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Our retention tree plan which is leaving eight wildlife and legacy trees per acre in the variable retention harvest unit will enhance diversity on the site. The harvest unit will be reforested with a mixture of conifer species including Douglas-fir and red cedar all of which are native species to this site. All standing timber within the riparian harvest units will be left. The riparian harvest units will be reforested with a mixture of Sitka spruce and red cedar to help promote a faster canopy recovery within these riparian areas.

5. Animal

a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐*pigeon,* ☐other:
mammals: ☒deer, ☐bear, ☐elk, ☐beaver, ☐other:
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐*talus slopes,* ☐*caves,* ☐*cliffs,* ☐*oak woodlands,* ☐*balds,* ☐*mineral springs*

b. List any threatened or endangered species known to be on or near the site *(include federal- and state-listed species).*

TSU_Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*
This site is part of the Pacific flyway but is not used extensively for resting or feeding by waterfowl.

d. Proposed measures to preserve or enhance wildlife, if any:
By designing this sale to comply with the State's HCP, wildlife habitat will be preserved and enhanced. Scattered leave tree clumps are favorable to raptor perching, feeding, and nesting. Proper road maintenance reduces potential water quality

impacts for fish populations. The riparian harvest units associated with this proposal will help the RMZ achieve an older forest characteristic, which will not only benefit the associated streams and fish, but upland species as well

1.2 acres of reclassified marbled murrelet habitat will be harvested in conjuncture with this proposal. The sale area is located within the E. F. Hoquiam WAU where 4 acres of habitat are available for harvest. The area proposed for release experienced extensive wind throw during the winter storms of 2007/2008

1) *Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.*

Species /Habitat:None	Protection Measures: None
Species /Habitat: None	Protection Measures: None
Species /Habitat: None	Protection Measures: None

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
None

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
None

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

1) Describe special emergency services that might be required.
Fire suppression, hazardous waste cleanup

2) Proposed measures to reduce or control environmental health hazards, if any:
The timber sale contract requires purchaser to minimize risk of fire and does not allow for disposal of any kind of waste on any State lands.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.
Noise from heavy equipment and log truck traffic while the sale is active

3) Proposed measures to reduce or control noise impacts, if any:
None

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? *(Site includes the complete proposal, e.g. rock pits and access roads.)*
Forest Land

b. Has the site been used for agriculture? If so, describe.
None

c. Describe any structures on the site.
No

d. Will any structures be demolished? If so, what?
No

e. What is the current zoning classification of the site?
Commercial forest land

f. What is the current comprehensive plan designation of the site?
Commercial Forest Use

g. If applicable, what is the current shoreline master program designation of the site?
NA

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
No

i. Approximately how many people would reside or work in the completed project?
None

j. Approximately how many people would the completed project displace?
None

k. Proposed measures to avoid or reduce displacement impacts, if any:
None

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
The design of this project is consistent with current comprehensive plans and procedures pertaining to DNR's Habitat Conservation Plan, and the state Forest Practices Act.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does Not Apply

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does Not Apply

c. Proposed measures to reduce or control housing impacts, if any:
Does Not Apply

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?
Does Not Apply

b. What views in the immediate vicinity would be altered or obstructed?

1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
☐*No* ☒*Yes, viewing location:* The proposal can be seen from areas within Hoquiam and the Summerhaven housing development adjacent to the northwest corner of the proposal area.

2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
☐*No* ☒*Yes, scenic corridor name: Visible from US 101*

3) *How will this proposal affect any views described in 1) or 2) above?*
The view will change from that of mature timber to a freshly harvested stand.

c. Proposed measures to reduce or control aesthetic impacts, if any:
Leave trees and leave tree groups will be placed to provide a more aesthetically pleasing view while the planted seedlings begin to establish and grow on the site.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None

b. Could light or glare from the finished project be a safety hazard or interfere with views?
Does Not Apply

c. What existing off-site sources of light or glare may affect your proposal?
None

d. Proposed measures to reduce or control light and glare impacts, if any:
None

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?
Dispersed informal recreation in the form of hunting, berry picking, sightseeing, etc

b. Would the proposed project displace any existing recreational uses? If so, describe:
No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
No

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None

c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)
A Trax report from the Planning and Tracking Special Concerns Report and the cultural resource layers on the State Upland Viewing tool indicated no known cultural resources on or near the proposal area. During the layout of the timber sale no indicators of potential cultural resources were identified within the proposal area

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
This proposed timber sale is located 5 road miles north east of Aberdeen, Washington off the Weyerhaeuser H-line and North Aberdeen A-line road system

1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*
No

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
No, Hoquiam 1 mile

c. How many parking spaces would the completed project have? How many would the project eliminate?
Does Not Apply

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
Yes, approximately 3,320 feet of new construction and 20,590 feet of pre-haul maintenance are planned in conjuncture with this proposal

1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*
Does Not Apply

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.
Approximately 10, including vehicle traffic to transport crews and forest products from the proposal area. Peak volumes will occur during peak harvest.

g. Proposed measures to reduce or control transportation impacts, if any:

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
No

b. Proposed measures to reduce or control direct impacts on public services, if any.

None

16. **Utilities**

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
None

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
None

C. **SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: Thomas Beaty Forester 2 Date: 2/24/09
Title